Alaska CIAP State Tier 1-10:

Geohazard Evaluation & Geologic Mapping for Coastal Communities

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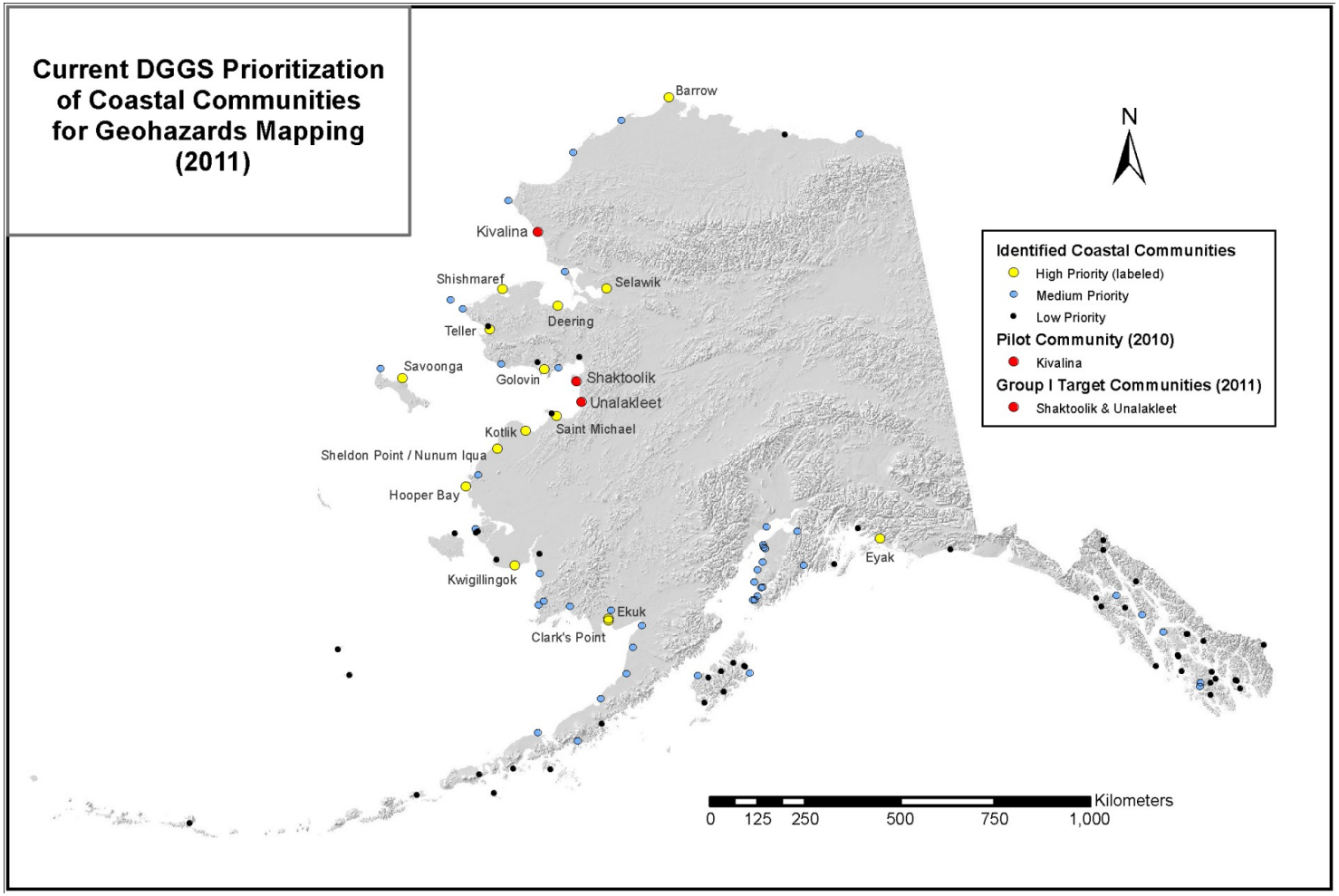
Location & Timeline

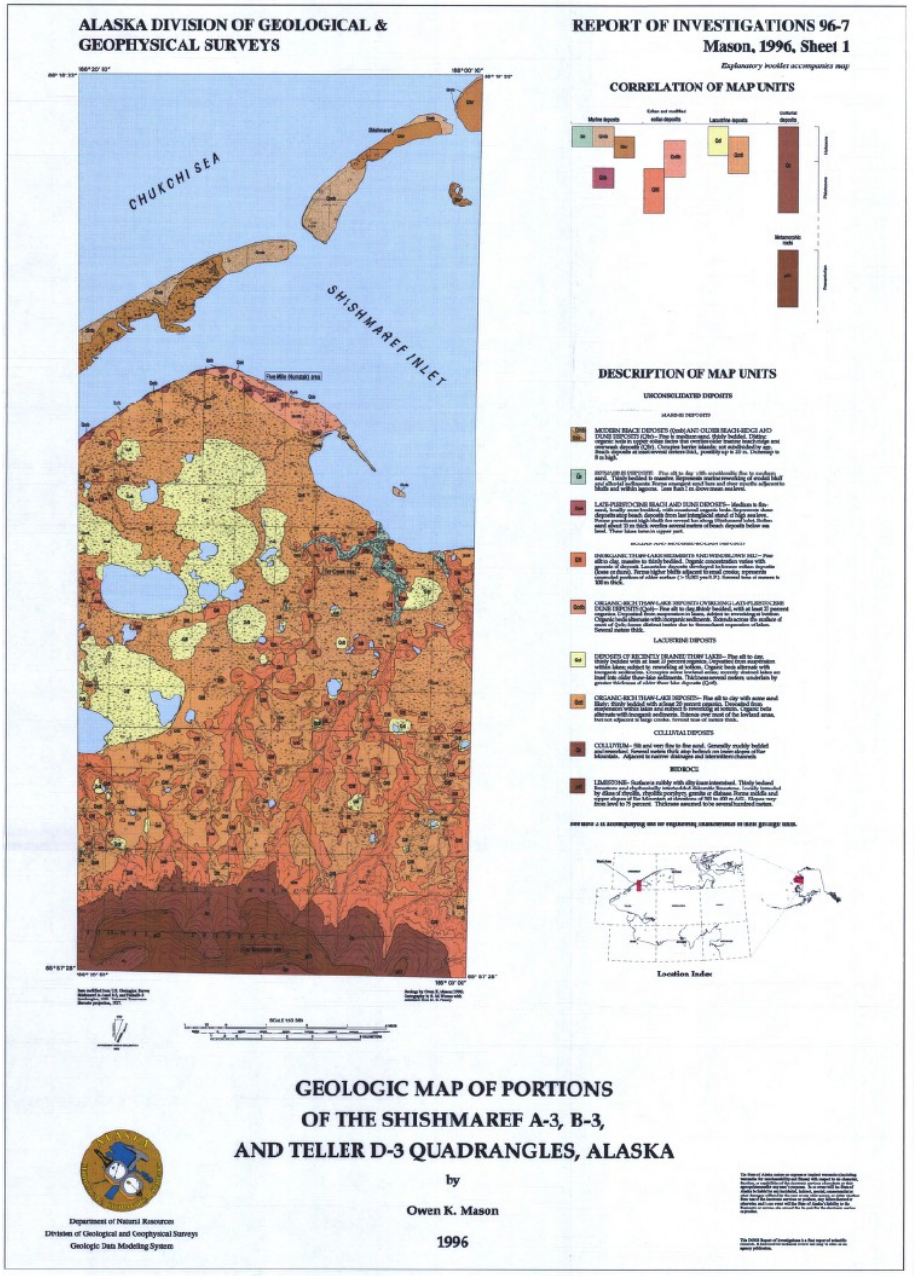


- 2+ communities/year… at least 9 communities by 2013
- 2 map products + 1 report per community
- Community prioritization will evolve with outside input & shifting needs

Map Products

1. Surficial Geologic Map

- Scale: 1:63,360
- Describes composition, structure and engineering properties of the earth's surface deposits
- Distribution of loose materials (i.e. sand, gravel) and exposed bedrock
- Primary uses:
  - Baseline geologic data
  - Ground conditions
  - Construction materials sources

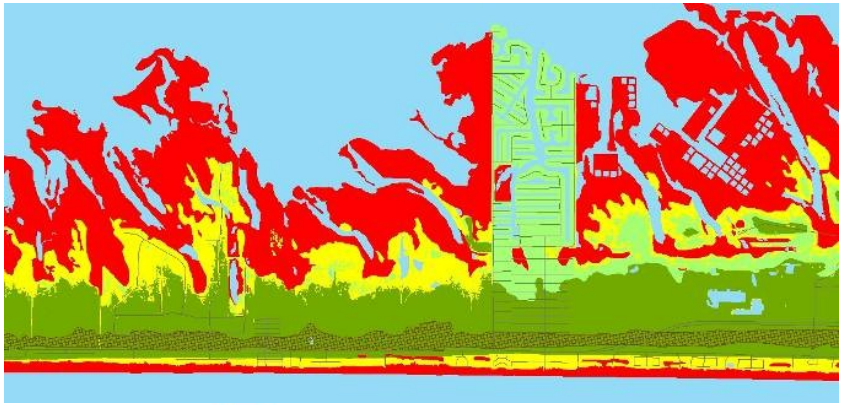


Map Products

2. Hazard Zonation Map

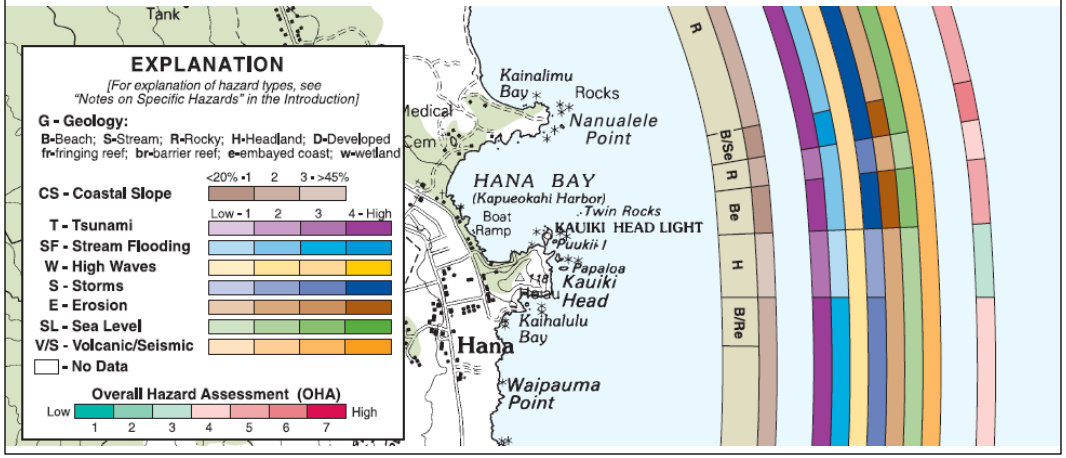
- Multi-hazard mapping approach for Alaska coastal zone is under development
- Emphasis on relative risk
- Identify areas prone to hazards such as:
  - Erosion
  - Landslides
  - Wave attack
  - Flooding
  - Permafrost thaw
  - Earthquakes
- Primary uses:
  - Synthesized hazard information for project sites
  - Development & administration of coastal management plans
  - Designation of natural hazard areas

Gavelston Island, TX *(Gibeaut, 2007)*



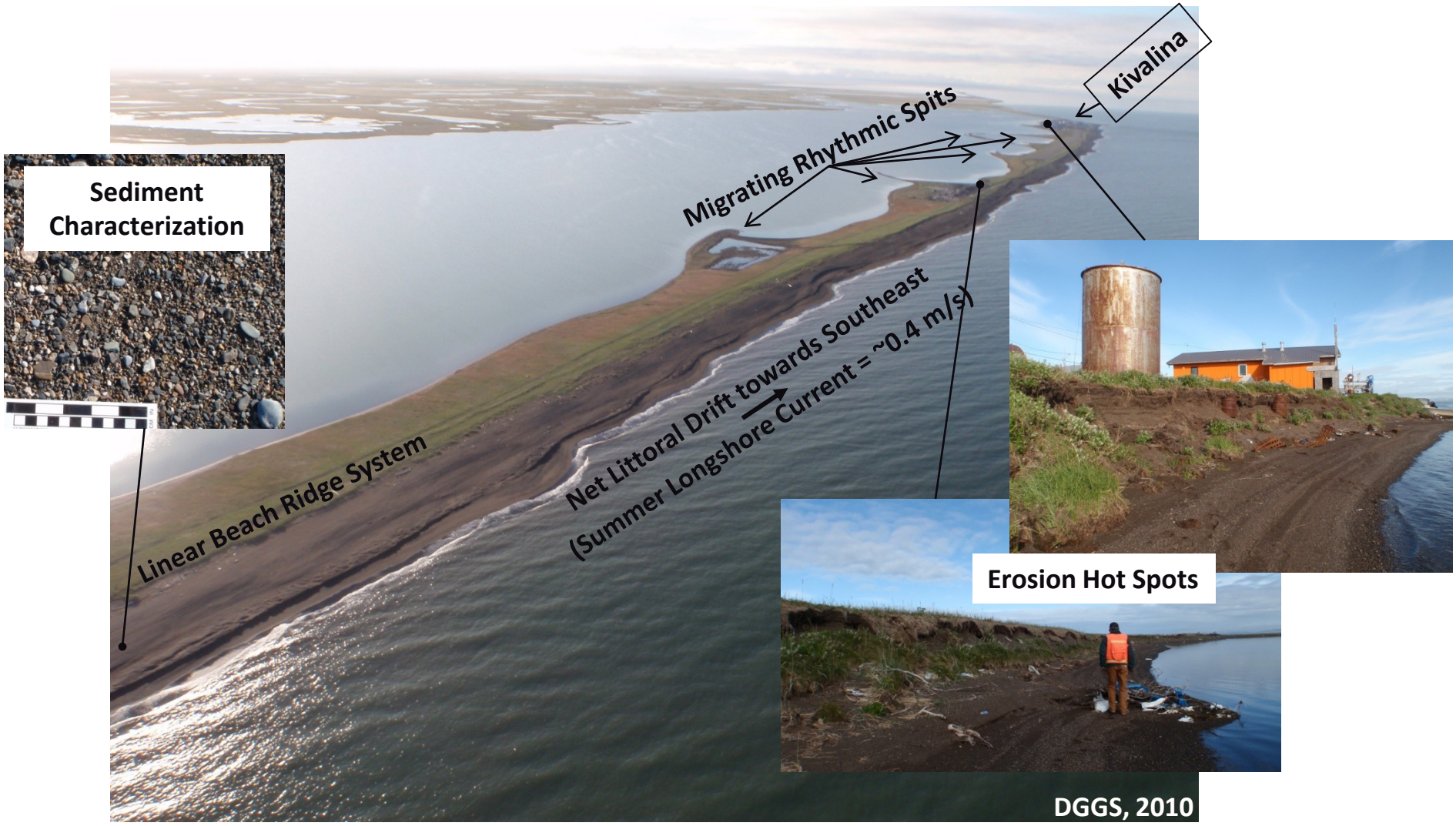
Open Water	Bay, ocean, natural or excavated ponds and swales that are always inundated.
Low Geohazard Potential	Island Core Upland: Centrally located upland areas generally more than 5 feet above sea level and not expected to become critical environments in 60 years' time (2062).
Moderate Geohazard Potential	Upland: Upland areas generally less than 5 feet above sea level that are not expected to become critical environments during the next 60 years (2062) (see above) but may be affected by storm surge caused by typical tropical storms or category-one hurricanes.
High Geohazard Potential	Future Critical Environments: Areas expected to become critical environments (see above) in 60 years' time (2062) if historical rates of relative sea-level rise and shoreline change continue and if development or restoration projects do not affect natural processes.
Imminent Geohazard Potential	Present Critical Environments: Salt and freshwater wetlands, including beaches, tidal flats, and marshes. Along Gulf of Mexico shoreline, including beaches and fore dunes.

Hawaii Coastal Mapping *(USGS, 2002)*



Summary Report

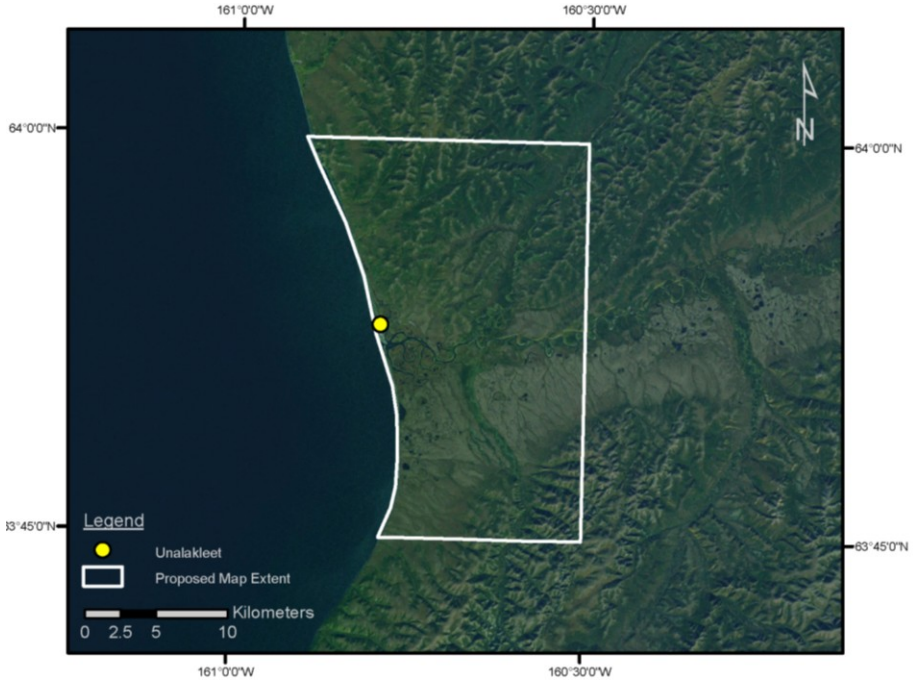
- Emphasis on *regional* geologic setting and coastal processes
  - Improves understanding & identification of local geologic hazards
  - Provides baseline data for community and district planning (or relocation)



2011 Field Season

Unalakleet

June 29-July 11



Shaktoolik

July 16-30